



National Science Foundation

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MEMORANDUM:

Date: February 27th, 2013

From: Ms. Martha A. Rubenstein *Marty*
Office Head and Chief Financial Officer,
Office of Budget, Finance, and Award Management

To: Dr. Brett M. Baker
Assistant Inspector General for Audit
Office of Inspector General

Subject: Response to "NSF OIG Alert Memo, Report No. 12-6-001,
Dated September 28, 2012, NSF's Management of Cooperative Agreements"

This Memorandum provides our organization's response to the subject Alert Memo, which addresses OIG concerns specific to NSF's cost surveillance measures for awarding and managing cooperative agreements. In issuing the Alert Memo, the OIG has requested that NSF provide a corrective action plan addressing the recommendations contained in the document by no later than April 1st, 2013. This Memorandum is being forwarded prior to that date in order to provide an advance summary of BFA's position on this matter, and to facilitate ongoing dialogue between our offices to resolve issues identified in the Alert Memo.

On December 4th, 2012, the NSF Director announced the beginning of a four month internal review of all aspects of this agency's support for large research facilities. The review will result in recommendations, which if implemented, may alter the manner in which NSF prioritizes, builds, and operates large research facilities. Therefore, this response to the subject OIG Alert Memo reflects current NSF procedures and practices as well as planned improvements that have been previously identified to your office. If additional improvements are identified based on completion of the four month internal review, BFA will strongly support their implementation. Further, while noting that differences may exist between BFA and the OIG on the specific methodologies that will best achieve the vigorous oversight of large facility projects sought by both our organizations, we emphasize that BFA is in full agreement with the OIG's stated emphasis within the Alert Memo that it is imperative that the agency exercise strong cost surveillance controls over the lifecycle of large facilities projects.

Prior to final issuance, a draft of the Alert Memo was forwarded to NSF for comment, and we appreciate that comments provided by our office were considered in the preparation of the final document. We also continue to stress areas of agreement between our organizations associated with the development and implementation of strengthened procedures for reviewing large facility project cost estimates prior to construction, and for post-award monitoring of incurred costs during project execution. Through separate correspondence, we have provided information on specific actions that are being initiated in both the pre-award and post-award budget and cost review process to strengthen business controls

already utilized by the agency, including additional internal analysis of awardee proposal budget and financial systems information, increased use of outside cost analysis and audit support to augment budget estimate reviews, and the utilization of incurred cost audits, when appropriate, to strengthen the review of billed costs. BFA is committed to implementing these process updates on an aggressive schedule in order to enhance current procedures to ensure proper oversight of large facility construction costs.

While emphasizing our common goals to ensure vigorous oversight of large facility projects, and while remaining strongly committed to working with the OIG to resolve differences in how those goals are best achieved, we are concerned with many of the specific assertions raised by the OIG in the Alert Memo. These assertions question the validity of the procedures currently used by the agency to manage large facility projects, and conclude that many NSF projects include costs that are “unsupportable,” and “unallowable,” “undermining the agency’s ability to serve as a proper steward of federal funds.” BFA strongly disagrees with these conclusions. Our positions on these matters have been consistently related to your office through our prior response to the draft Alert Memo, and through other official communications that have been provided consistently and through multiple venues, including through the agency’s Annual Financial Statement Audit review. We are especially concerned that conclusions have been drawn in the Alert Memo prior to final disposition of audit reports cited in the document, and that recommendations have been made advocating mandatory conduct of pre and post award audits not based on the specific circumstances of individual projects, but as a requirement for all large facility cooperative agreement awards.

Based on the foregoing, BFA takes this opportunity to address statements and conclusions contained within the Alert Memo where disagreements exist between our organizations, or where we do not consider conclusions made to be accurately framed within the context of regulatory requirements applicable to federal financial assistance programs. The following represent a summary of BFA’s major concerns with the assertions made in the Alert Memo.

- The OIG advocates requiring pre-award cost proposal audits for all major facility awards exceeding \$50M in value. BFA believes that audits should only be required when analysis concludes that audits, which can be costly and time consuming, are warranted, and would be superior to other cost analysis information available to the Grants Officer. In fact, the OIG advocates standards for obtaining audits that exceed those imposed for federal contract awards. DCAA’s own internal policies indicate that a threshold of \$100M has been established for *consideration* of conducting audits for cost reimbursement instruments, and emphasizes the requirement that it is the requesting organization that is responsible for determining the extent of field pricing support required, including establishment of specific areas for which audit input is needed.
- The OIG also advocates pre-award accounting system audits for all major facility awards exceeding \$50M. Again, BFA believes that audits should only be obtained when determined necessary by the Grants Officer, especially in that federal policy states that annual A-133 audits are to be used in lieu of other audits except when they do not meet the Agency’s needs. For determining accounting system adequacy, BFA has procedures in place consistent with those of other Federal Agencies to make these determinations pre-award, and to monitor system compliance post award. Accounting system audits should be obtained only when necessary, and

in consideration of other information available to the Grants Officer, such as the record of fiduciary responsibility already available for the institutions managing these awards.

- OIG concerns raised in the Alert Memo are largely based on what are characterized as “dramatic” findings of approximately \$305 million (almost 28 percent of estimated costs) in unallowable or unsupported costs associated with three recently commissioned DCAA audits. However, the assertion of these costs being “unallowable” and “unsupported” are made by the OIG prior to resolution of the audit reports, and to any unresolved matters being addressed through the proper resolution process (OMB Circular A-50 Audit Followup). It is also important to clarify that these audits are associated with establishing the up-front cost estimates for the awards in question, and do not represent audits of costs already incurred by awardees.
- Much of the OIG’s contention concerning the inclusion of unallowable and unsupported costs in large facility proposals centers on the fact that NSF uses contingency estimates to better define anticipated project costs. Both the OIG and the DCAA consider these estimates to be prohibited from inclusion in the cost estimates established in the cooperative agreements for these projects. However, the OMB has recently published planned federal-wide guidance reaffirming the NSF position that these estimates may be included within the estimated cost for large construction awards. These estimates represent the majority of the costs questioned in the audits.
- The Alert Memo criticizes awardee institutions (non-profit and educational organizations) audited as not providing timely and supportable data in response to DCAA audit requests. While the OIG asserts that these circumstances show a lack of diligence on the part of awardees and an inability to support costs, BFA believes that problems and delays have been driven instead by the OIG and DCAA retroactively requiring audit detail not originally required from these organizations, inconsistent with the information that had been required by NSF prior to award of the agreements.
- The OIG questions the processes used by NSF to track contingency estimates during project execution. However, the OIG position conflicts with widely held Government and industry standard practices for properly managing contingency estimates. Consistent with these practices, BFA continues to stress that contingency estimates are managed at an aggregate versus at an individual cost element level, are properly assigned to appropriate cost categories when the budget estimate has matured, and are subject to payment by NSF only when determined to be allowable under the appropriate OMB cost principles.
- The Alert Memo states that cooperative agreement awards for large facility projects should be subject to annual incurred cost audits. While BFA agrees that strong cost surveillance procedures are required, we disagree with a mandate for annual incurred cost audits for all awards exceeding \$50M in value. Instead, BFA advocates post award review of incurred costs building on pre-established federal post-award audit requirements, and addressing the need for additional reviews based on award risk. We believe this position to be consistent with regulatory requirements governing such audits. BFA has previously disclosed to the OIG an initiative to commission the use of incurred cost audits for major large facility cooperative agreements, when necessary, and following an agency risk analysis to determine the level of post-award audit review appropriate.
- Finally, the Alert Memo indirectly criticizes NSF’s use of cooperative agreements for executing large facility projects, stating that use of these types of instruments is discretionary by the agency, and that these awards do not provide the same level of transparency over transactions and are not subject to the same rigors and reporting mechanisms as contracts. BFA disagrees

with this assessment. First, we consider the use of cooperative agreements for these awards to be the appropriate choice of award vehicle based on statutory language in the Federal Grant and Cooperative Agreement Act. Second, NSF has the authority to implement procedures to ensure proper transparency and rigor in execution of the awards.

A detailed analysis of the Alert Memo has been developed by BFA staff and is provided as an attachment to this document. Matters raised in the Alert Memo that are addressed in the attachment center on: (1) federal requirements for obtaining pre-award proposal and accounting system audits, (2) the specific findings of the Defense Contract Audit Agency (DCAA) resulting from their audits of three in-process agency construction awards cited in the Memo, (3) requirements for obtaining audits of awardee post-award incurred cost submissions, (4) use of Standard Form 424 or an equivalent process to segregate allowable and unallowable costs and to provide greater visibility, (5) proper accounting of project contingency funds and the separate tracking of budgeted versus actual contingency costs, and (6) choice of award instrument. We note that while addressing our disagreements with the OIG concerning statements made in the Alert Memo, we again take the opportunity within the attached responses to also highlight areas of agreement and planned process improvements to address concerns raised by your Office.

Attachment

Attachment – BFA Analysis of OIG Alert Memo Report No. 12-6-001, Dated September 28, 2012, NSF's Management of Cooperative Agreements"

Requirements for Obtaining Pre-Award Proposal and Accounting System Audits

The Alert Memo states that during the pre-award phase of a large facility project, cost monitoring procedures should include the conduct of audits of an awardee's proposed budget and accounting systems to ensure that cost estimates are fair and reasonable, and that the awardee's accounting system is adequate to bill the government properly. BFA is in full agreement with these goals. However, we disagree with the proposed emphatic requirement that pre-award Defense Contract Audit Agency (DCAA) audits are necessary pre-requisites to making these determinations *in all cases* for awards of \$50M or greater. We also disagree with the statement contained within the Alert Memo that "without proposal audits, NSF is left making funding decisions without adequate information to confirm the reasonableness of the estimates." OMB Circular A-110 "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations," contains no mandatory requirements or thresholds for the conduct of pre-award audits of cost proposals for financial assistance awards, and the OIG has acknowledged that there is no federal requirement for the conduct of such audits. Instead, federal policy delegates authority to individual federal agencies to establish procedures for determining the cost reasonableness of financial assistance instruments prior to award. We note that as previously related to the OIG, BFA is reviewing established agency policy for performing pre-award cost proposal reviews of major facility awards, and has determined areas where these procedures can be strengthened. These updated procedures will ensure that it is explicitly clear that situations may exist where obtaining a pre-award audit for all, or parts of a proposal, may be necessary. However, BFA disagrees with the establishment of mandatory audit thresholds. First, we note that the OIG advocated policy is inconsistent with policies set forth at other federal agencies for the review of financial assistance awards. Further, for the purpose of comparative benchmarking, the proposed policy is also inconsistent with federal requirements for pre-award audit of planned contract awards. Federal Acquisition Regulation requirements state that pre-award field pricing support provided for the purpose of determining cost reasonableness should reflect the minimum essential supplementary information needed to conduct a technical or cost or pricing analysis. In fact, a review of the DCAA Contract Audit Manual indicates that a threshold of \$100M has been established by that agency for *consideration* of conducting audits for cost reimbursement instruments, and re-emphasizes the requirement that it is the contracting officer who is responsible for determining the extent of field pricing support required, including establishment of specific areas for which audit input is needed (reference DCAA Contract Audit Manual, Sec. 9-102.1.b.). We further note that even in circumstances exceeding this threshold, DCAA's own internal procedures state that the level of audit support necessary is to be determined in collaboration with the requesting office, and that prior to initiation of an audit the level of risk associated with the proposal should be discussed with the requesting office, and alternatives to full audit of proposals considered when warranted.

For federal financial assistance awards, it is the responsibility of the warranted Grants Officer to determine if outside independent audit activity is necessary to adequately evaluate proposed costs. At NSF, requests for full audit of proposals must be considered in the context of other available methods for determining cost reasonableness. For example, NSF may determine that full pre-award audits are unnecessary for certain proposals submitted by organizations with pre-established and agreed to rate structures that have been previously reviewed by the Government, and for which a full review of

technical content can be conducted by both independent outside panels and by internal technical experts. We are also concerned that proposal audit is a time consuming process that could lengthen the project development period, and therefore requests for such audits should not be mandated prior to evaluating other available cost analysis techniques that may be equally effective for determining cost reasonableness. Examples of such techniques include comparison of cost elements proposed to historical cost information, available audit information, wage and salary surveys, catalog prices, price indices, and independent cost estimates; non-advocate review; and reasonableness reviews by staff and paid technical experts. Although the Alert Memo criticizes NSF's long established practice of utilizing independent outside panel reviews of technical experts to support cost analysis of large facility construction proposals, BFA considers this approach to be superior to analysis available from audit organizations without direct knowledge of complex systems and construction requirements associated with such projects and is recognized by respected authorities as a legitimate assessment technique (e.g., see the GAO Cost Estimating and Assessment Guide, p. 188). As acknowledged by the OIG, these evaluations are supplemented by analysis performed by the cognizant NSF Grants Officer. BFA is also working to strengthen procedures for obtaining additional cost analysis reviews of proposal information by the agency's Cost Analysis and Audit Resolution Branch.

Based on the foregoing, we believe that to require pre-award audits of large facility construction proposals in all circumstances when the estimated project value exceeds \$50M is inconsistent with established federal policy, and with the cognizant Grants Officer's responsibility to determine on a case-by-case basis the level of analysis necessary to determine cost reasonableness.

Regarding cost accounting system review, we note that NSF does perform pre-award desk reviews of new awardee organizations. These reviews focus on prospective new awardees' accounting systems, policies and procedures, and facilitate determining the suitability and financial viability of potential awardees. If an organization's financial systems are determined to be incomplete or inadequate, recommendations that funding be either postponed or not provided to the organization are made. We note that similar to requirements for pre-award cost proposal reviews, financial assistance policy does not mandate pre-award DCAA audit of an awardee's accounting system as a prerequisite to the award of individual grant or cooperative agreement actions.

Additionally, for organizations that have a history of financial assistance awards with NSF, known information is checked to determine whether any findings exist that adversely affect the agency's conclusion about the adequacy of the recipient's accounting system. For new awardees, BFA is working to strengthen procedures for the review of accounting systems by fully adopting procedures set forth in NSF policy, including the NSF Proposal and Award Manual (PAM) and the NSF Prospective New Awardee Guide. As set forth in the PAM, NSF requires that prospective new awardees submit information that will allow the agency to evaluate the administrative and financial systems in place at the awardee's organization. Information on specific documentation requirements is set forth in the NSF Prospective New Awardee Guide. Per the requirements of the Guide, organizations receiving awards are required to have an adequate accounting system in order to provide assurances to the Federal Government that the awardee can support the requirement that expenditures of federal funds are in accordance with applicable regulations and with the terms and conditions of the award. It is also noted that procedures set forth in the Guide specifically state that the fact that an organization may already have an active award does not preclude NSF from asking the organization to submit more detailed information to support the government's evaluation, and that the amount of risk involved in the award determines the

depth to which NSF examines a proposer's capability to execute a Federal award and whether appropriate terms and conditions apply to the award to protect the interests of the Government.

In sum, while agreeing that a pre-award accounting system audit may be a viable tool available to the Grants Officer for determining accounting system adequacy, we must disagree with a mandate that such audits be a prerequisite for any award \$50M or greater. Instead, such audits should only be initiated when information available to the Grants Officer is not sufficient to determine accounting system adequacy.

Finally, while disagreeing with specific mandates for pre-award audits set forth in the Alert Memo, BFA does agree that the scope and complexity of large facility awards requires that increased focus be placed on ensuring that proposed costs are reasonable, and that accounting systems are adequate to determine costs applicable to the award. BFA has previously informed the OIG that it plans to further strengthen internal procedures for completing pre-award reviews of recipient cost proposals and accounting systems associated with major construction awards. These plans, which have been set forth in documentation associated with NSF's annual Financial Statement Audit, will supplement procedures already in place at the agency by strengthening review of cost proposals and accounting system information with emphasis on the following critical areas: (1) assessment of the process employed by the recipient to estimate the elements of cost or price being analyzed, (2) validation of the application of rates and factors by the recipient, (3) review of proposed budgeted line items to requirements set forth in the applicable OMB cost principles, (4) comparative analysis of pricing information, (5) review of the adequacy of the recipient's accounting system and other systems as determined necessary for proper management of federal funds, and (6) determinations, on a case by case basis, of the level of DCAA or other independent audit activity that may be necessary to determine a cost proposal to include reasonable costs, and to obtain additional insight into the adequacy of an awardee's accounting system to properly account for and bill incurred costs.

Findings of the Defense Contract Audit Agency

A substantial portion of the Alert Memo summarizes audit activities performed by the DCAA on the OIG's behalf associated with three major construction awards. We first emphasize that we disagree with conclusions made in the Alert Memo that the projects in question include unsupported and unallowable costs, given that there has not yet been final resolution of the subject audit reports. Audit information referenced in the Alert Memo constitutes the findings of the DCAA offices and is pre-decisional prior to disposition of those findings by NSF. While in no way discounting the importance of investigating and resolving the DCAA findings in these matters, it is important to clarify that decisions as to the reasonableness of estimated costs for the award of a cooperative agreement are vested with the warranted Grants Officer. These decisions were made by NSF Grants Officers prior to award of the cooperative agreements in question. The proper venue for resolution of these audit findings is through procedures set forth in OMB Circular A-50 Audit Followup. Prior to completion of the procedures set forth in the Circular, we disagree with any statements set forth in the Alert Memo that audited costs are unallowable or unsupported. Further, we take this opportunity to address the three major assertions made in the Alert Memo based on the DCAA audits conducted. These assertions are that NSF procedures are not adequate to: (1) address unallowable and unsupported costs contained within the cost proposals, (2) ensure that proposals meet acceptable standards for auditability, and (3) ensure that awardee accounting systems are adequate to properly bill incurred costs.

1. Unallowable and Unsupported Costs Contained Within Cost Proposals

At the core of the disagreement between the BFA and OIG as to the allowability of a significant portion of the costs questioned in the DCAA audits is the issue of inclusion of “contingency” estimates within the awardee’s cost proposals. The issue of contingency estimates is cited repeatedly throughout the Alert Memo, and the significant contingency estimates that are included within the proposals audited are used by the OIG as a basis to assert the inadequacy of NSF’s cost review procedures. However, the Alert Memo makes no acknowledgment of the inherent disagreement between BFA and the OIG specific to the allowability of contingency estimates for the purpose of establishing accurate cost estimates for large construction projects. In fact, NSF *requires* that awardees include contingency estimates within their proposal budget as a prerequisite to determining whether proposed costs are reasonable and sufficient for successful project execution, and NSF reviews those estimates for adequacy. While DCAA disagrees with the inclusion of contingency within these estimates, we note that their position on this matter is not determinative. Instead, the Office of Management and Budget (OMB), which is the cognizant federal agency responsible for establishing the cost principles cited by the DCAA and the OIG as prescribing contingency estimates as unallowable, has confirmed publically that the intended federal policy is for contingency amounts to be explicitly included in budget estimates for large construction projects to the extent that they are necessary to improve the precision of those estimates, that the amounts must be estimated using broadly-accepted cost estimating methodologies, and as such, that contingency amounts are to be *included in awards* and expended during project execution. It is important to note that this position, published in a Federal Register Notice issued February 1st, 2013, is stated as a clarification of OMB policy, not the establishment of new policy, and that explicitly for large facility awards the use of contingency estimates “is an acceptable and necessary practice, and that the method by which contingency funds are managed and monitored is at the discretion of the Federal funding agency.” NSF has consistently followed this policy for the estimation of costs associated with large facility projects, and has codified the details of establishing sound contingency estimates within the agency’s Large Facilities Manual, ensuring consistency of agency policies with relevant OMB Circulars as well as other authoritative government and industry guidance on this matter. We also note that consistent with procedures set forth in the OMB Circular A-50 previously cited in this document, BFA sought the opinion of agency legal counsel as to the allowability of contingency estimates within cost proposals based on that office’s legal analysis of the applicable cost principles. This advice, provided to your office in 2011, supports the agency’s position that amounts for contingency may be estimated and included in recipients’ award budgets. Based on these facts, we consider the numerous statements within the Alert Memo classifying contingency estimates within budget proposals as unallowable to be flawed, and to be inconsistent with the governing cost principles as substantiated by OMB.

Ancillary to the issue of the *allowability* of contingency estimates included within awardee proposals is the issue of the *supportability* of these and other estimated costs used to establish a basis for award of major facility projects. The Alert Memo emphasizes that cost estimates must be adequately supported and documented, and cites numerous circumstances where DCAA maintains that adequate supporting documentation was not provided. We understand the gravity of DCAA findings that include statements that categories of estimated cost are unsupported. However, it must be again emphasized that these findings are pre-decisional to the cognizant federal agency’s determination of the reasonableness of proposed costs prior to award, and that it is NSF Grants Officer, and not DCAA, that determines whether

proposed costs are adequately supported to provide a basis for determining cost reasonableness. Normally, an agency would receive such DCAA assessments prior to award, as they are among the pre-decisional tools that can be used by a Grants Officer in finalizing the cognizant federal determination of reasonableness of proposed costs, prior to award. With respect to contingency estimates, NSF determined prior to award of the cooperative agreements that these estimates were supportable. We acknowledge that standards for supportability of contingency estimates applied by NSF and set forth in the NSF Large Facilities Manual differ from those applied by the DCAA, however, application of different standards by DCAA does not nullify the NSF standards or the analysis performed by the agency. For example, DCAA has determined to reject any awardee estimate of subcontracted materials or equipment cost used as a basis to support estimation of contingency associated with these charges, where the development of the contingency estimate is based on the escalation of a subcontractor quotation not current as of within 6 months of the analysis completed. Conversely, consistent with NSF procedures, reasonable escalation of quotations exceeding 6 months in currency, especially for unique, non-commercial, or highly complex items, is utilized by the agency to reasonably estimate costs associated with these items. For DCAA to state that such costs are "unsupported," is unreasonable. Similarly, DCAA has rejected use of standard NSF procedures allowing for the use of risk matrices to categorize the likelihood and severity of cost impacts of future events based not on the unreasonableness of these procedures, but based on the fact that DCAA cannot verify qualitative value judgments determined by expert engineering personnel in assigning risk values. BFA disagrees with the claim that these estimates are unsupported, especially based on independent reviews completed of the estimating methodology by outside independent experts, and the consistency of this type of analysis with widely accepted practices for establishing contingency estimates.

In addition to the issues associated with the allowability and supportability of contingency estimates contained within audited proposals DCAA has also questioned estimated costs associated with other elements of awardee proposals. These include, for example, estimates associated with direct labor, equipment, and materials necessary to execute the audited projects. The OIG determined these costs to be unreasonable prior to final resolution of the audit findings by the agency. In fact, the finalization and forwarding of audit information associated with one of the audits cited was provided to NSF for action on September 28th, 2012, the same date as the issuance of the final Alert Memo. NSF is currently in the process of resolving these audit findings. While this analysis has not yet been completed, the preliminary review by the Grants Officer has found that many of the costs questioned by DCAA are, in fact, supportable. This circumstance raises further issues with the OIG assertion that significant portions of audited costs reviewed under the three proposals are unallowable or unsupported.

As a final comparative analysis, we note that at the macro level, DCAA's own cognizant Office of Inspector General, through issuance of that Office's Semi-Annual Report to Congress, confirms that for audits where statistics are available (post-award contract actions), DCAA recommended cost disallowances are sustained by government contracting officers in less than 46% of circumstances tracked by the agency (based on analysis of DoD Office of the Inspector General Semi-Annual Reports for the previous three fiscal years). While each situation where DCAA has determined a cost to be unallowable or unsupported must be addressed separately based on the individual circumstances of the action, these statistics substantiate that the final determination of the reasonableness of cost estimates can only be evaluated after disposition of audit recommendations by the cognizant Contracting or Grants Officer. Thus, audit findings alone should not be used to draw conclusions as to the reasonableness of proposed costs until disposition of the findings by the awarding agency.

Based on the foregoing, BFA is concerned with broad statements contained in the Alert Memo questioning \$305 million “in unallowable and unsupported cost” associated with the referenced projects prior to resolution of the audit reports cited in the document. Substantive disagreement between the OIG and BFA as to the allowability and supportability of these costs exists, as illustrated above, and BFA believes that these issues should be resolved through the procedures set forth in OMB Circular A-50.

2. Acceptable Standards for Auditability

The Alert Memo states that cost proposal information provided by the three awardee organizations audited by DCAA were in many circumstances determined to be “unacceptable for audit.” Associated with this issue of auditability, the OIG asserts that awardees cannot readily provide the necessary supporting documentation for their proposed budget estimates to third parties, that proposal information cannot withstand independent review, and that problems with NSF’s current process for evaluating cost proposals are illustrated by the fact that proposals lack sufficient information to conduct an audit or determine a fair and reasonable price. BFA disagrees with this assessment. First, we note that each of the three organizations audited did in fact meet the standards for cost proposal submissions that were required by the cognizant federal agency (NSF) prior to award of cooperative agreements. Further, the proposal audits were completed and received over one year after the subject awards were made. The DCAA audits levied separate proposal submission requirements, and cost element documentation requirements, that had not been required by NSF prior to award. These documentation requirements included cost element format, granularity, and supporting documentation details far in excess of NSF prescribed standards. In that awardee organizations could not match original cost estimate information to retroactively prescribed standards, the proposal information, as cited in numerous circumstances within the Alert Memo, was determined to be “inadequate for audit.” The audits conducted by DCAA prescribed standards for auditability inconsistent with those that had been originally established by the agency responsible for determining the level of detail necessary to review cost proposal information. Although the OIG may disagree with the established NSF policies that required cost detail information be submitted at a less granular level than subsequently required by DCAA, to retroactively prescribe different documentation standards, and then to characterize problems with an organization’s inability to match data to original proposal estimates, is inconsistent with standard audit practices. This problem is exacerbated by the fact that the awardees were required to develop this additional information over one year after award of the agreements. Further, it is BFA’s position that many of the DCAA data submission requirements levied were unreasonable as previously illustrated, (e.g., requiring that all quotations for subcontracted support be validated through recent subcontractor quotations), and more consistent with application of standards for determining cost reasonableness for contract awards requiring certified cost or pricing data than for standards prescribed by NSF for the review of financial assistance awards for large facilities projects. Standards used by NSF that were not considered in the DCAA audits include not only those set forth in the NSF Large Facilities Manual, but also those contained within NSF’s Definition and Use of Contingency Resources in NSF Facility Construction guidance, and the NSF Proposal & Award Policies and Procedures Guide. We believe these were the causal factors leading to delays in DCAA obtaining detailed information on a timely basis, including problems with the auditability of proposals.

3. Adequacy of Awardee Accounting Systems

The Alert Memo asserts that based on the fact that NSF does not require pre-award cost accounting system audits of awardees as a mandatory prerequisite of large facility construction awards, the agency cannot determine accounting systems to be adequate to bill the government properly. A recently completed accounting system audit performed by DCAA on the OIG's behalf is referenced as indicative of this circumstance, stating that the audit determined the organization's accounting system inadequate to account for government funds, and that the organization was not eligible for advanced payments because its accounting system did not meet OMB and NSF financial management standards in eight significant areas. As the OIG is aware, the referenced audit was resolved by NSF in 2011, and corrective action taken to address the accounting system deficiencies identified in the report. Further, as previously related in this Memorandum, BFA has stated that internal procedures are already being evaluated and updated to ensure that pre-award cost accounting system reviews of prospective awardees are initiated, when necessary, based on the pre-award review of information available to the Grants Officer to determine system adequacy. We also note that related to the three organizations that were the subject of the audits referenced in the Alert Memo, all were considered to have adequate financial systems prior to award of the cooperative agreements. Subsequent to the awards, each organization has been subjected to scrutiny under the BSR program. These efforts are at varying stages in the review process, but no adverse findings have been made concerning the adequacy of the recipients' accounting systems. (A more substantive discussion of the NSF BSR process is set forth in a subsequent section of this Memorandum.) Based on these facts, BFA continues to maintain the position that pre-award accounting system audits should be initiated by the agency based on a review of the specific circumstances of the award, and not as a prerequisite for all large facility projects.

Requirements for Obtaining Reviews of Incurred Cost Submissions

The Alert Memo states that cooperative agreement awards for large facility projects should be subject to annual incurred cost audits. While BFA agrees that strong cost surveillance procedures are required for large facility projects, especially based on the substantial dollar value of these actions, BFA disagrees with a mandate for annual incurred cost audits for all awards exceeding \$50M in value. Instead, BFA advocates post award review of incurred costs building on pre-established federal post-award audit requirements, and addressing the need for additional reviews based on award risk. BFA believes this position to be consistent with the legal and regulatory requirements governing such audits.

OMB Circular A-110, Sec. 26 Non-Federal Audits, states that "Recipients and sub-recipients that are institutions of higher education or other non-profit organizations (including hospitals) shall be subject to the audit requirements contained in the Single Audit Act Amendments of 1996 (31 USC 7501-7507) and revised OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations." Further, OMB Circular A-133 states that audits conducted in accordance with the Circular shall be in lieu of any financial audit required under individual Federal awards, and to the extent that such A-133 audits meet Federal agency's needs, they shall rely upon and use such audits. This policy does not limit the authority of Federal agencies, including their Inspectors General or the U.S. General Accounting Office, to conduct or arrange for additional audits (e.g., financial audits, performance audits, evaluations, inspections, or reviews) nor does it authorize any auditee to constrain Federal agencies from carrying out additional audits. However, the Circular requires that any additional audits be planned and performed in such a way as to build upon work performed by other auditors. (Ref. § .215 Relation to

other audit requirements). Based on these facts, BFA considers the OIG recommendation that agency initiated accounting system audits be mandated as a requirement for all individual financial assistance awards exceeding \$50M to be inconsistent with OMB Circular A-133, to the extent that it mandates such audits in all circumstances versus a determination by the agency that additional audits are necessary. We are especially concerned with the OIG statement that “absent incurred cost submissions or their equivalent, NSF cannot adequately monitor awardees’ expenditure of federal funds during the post award stage.” This statement would seem to contradict long standing federal practices that make annual incurred cost audits of financial assistance awards an exceptional circumstance, not a standard process prescribed in regulation as necessary to monitor incurred costs.

In addition to complying with OMB A-133 single audit requirements, NSF ensures the adequacy of the financial system of each large facility project awardee for properly billing incurred costs by performing periodic cost accounting system reviews following procedures set forth in the NSF *Business Systems Review (BSR) Guide*. The NSF BSR Guide establishes and defines the overall framework, structure, awardee expectations and details regarding business system reviews for NSF large facilities. These reviews have been developed specifically to address the higher level of risk associated with major facility awards. BSR reviews include focus on awardees’ accounting systems and policies and procedures, and facilitate determining the suitability and financial viability of awardees. A major principle of the financial system review is that the awardee have an adequate accounting system that is compliant with the applicable generally accepted cost principles (2 CFR 220, 2 CFR 230, FAR Part 31), administrative requirements (2 CFR 215), and internal policies and procedures. Explicit in this review is that the awardee has filed required OMB Circular A-133 reports with the single audit clearinghouse and that the awardee is actively resolving any outstanding audit findings with the cognizant federal agency. If an organization’s financial systems are determined to be incomplete or inadequate, recommendations that funding be either postponed or not provided to the organization are made.

Based on the application of the above prescribed standards to the three cooperative support agreements referenced in the Alert Memo, we first note that each of the three have successfully completed A-133 Audits, and no internal control deficiencies have been identified that would indicate any inadequacies in their respective accounting systems. Additionally, each awardees’ accounting systems has been subjected to review to varying degrees under NSF’s Business System Review program. To date, only limited instances of unallowable costs billed to NSF awards have been identified, and these matters have been successfully resolved. We further note that the Alert Memo makes no acknowledgment of post award cost monitoring controls that are currently in place by NSF for prior agency approval of the use of contingency expenditures associated with these awards, as has been codified by modifications to the applicable cooperative agreements. While not acknowledging these post award cost monitoring procedures currently in place at the agency, the Alert Memo instead highlights delays in obtaining incurred cost audits that the OIG has initiated, citing numerous examples of these circumstances and stating that “these waiting periods are inordinately long, and demonstrate the problems with NSF’s post-award monitoring processes.” However, it is the BFA position that delays in obtaining cost incurred audit information from awardees are instead driven by these organizations’ lack of experience in providing cost documentation information in a format, and at the detail level, prescribed by DCAA for incurred cost submissions. As already acknowledged by the OIG, these organizations are not otherwise subject to annual incurred cost audits for other federal financial assistance programs, and many times do not have separate federal contract awards subject to

government Cost Accounting Standards (CAS). The fact that non-CAS covered organizations experience challenges in producing data meeting DCAA documentation standards is not, we believe, unexpected.

Finally, we note that in addition to the cost monitoring controls set forth above, BFA has previously disclosed to the OIG an initiative to commission the use of incurred cost audits for major large facility cooperative agreements, when necessary, and following an agency risk analysis to determine the level of post-award audit review appropriate. Guidance is being developed by the agency that will clarify post-award monitoring requirements to both strengthen current procedures (which include the use of A-133 audits and internal cost monitoring of recipient costs by NSF personnel) and to address the use of audit resources when appropriate. Given that post award audit activity is not mandated by financial assistance regulation, NSF is also working to identify a process to obtain resources for this initiative prior to committing to the completion of outside audits versus adequate verification that incurred costs are reasonable through alternate methodologies.

Use of Standard Form 424 to Segregate Allowable and Unallowable Costs and to Provide Greater Visibility

The Alert Memo states that NSF does not require the use of OMB Standard Form 424C “Budget Information – Construction Programs,” which would allow for clear identification of allowable and unallowable costs, as well as amounts for contingency, in an awardee’s budget proposal. The OIG concludes that without use of this, or an equivalent form or process, awardees are not required to segregate allowable from unallowable costs in proposal budgets, increasing the risk that NSF will unknowingly fund unallowable costs, will preclude stakeholder assessment of project risk, and will increase the difficulty of tracking expenditures of certain funds in an awardee’s accounting system.

Through our response to NSF Audit Report No. 12-2-010 “Audit of NSF’s Management of Contingency in the EarthScope Awards,” issued in September 2012, NSF has separately agreed to require awardees to use Standard Form 424C, or an equivalent form, to identify amounts needed for contingencies, and to distinguish between allowable and unallowable costs, when submitting proposals for major facility projects. However, please note that NSF has not previously required use of Form 424C based on the fact that the form is not mandatory for agency financial assistance awards (reference 2 CFR 215.12(b)), and NSF has already developed procedures that are utilized for proposal evaluation to ensure that unallowable costs are not funded in the awards. Given current agency standards for preparing and presenting construction cost estimates, use of Standard Form 424C is considered to be redundant, and in fact NSF currently requires that prospective awardees provide more detailed cost proposal information than required by the form. Notwithstanding this fact, the agency is currently working to provide increased standardization to the summary presentation of awardee construction cost work books when identifying contingency estimates, as well as presentation of these estimates on NSF Form 1030. While NSF works to implement these improvements, we emphasize that cost book information submitted by awardees is already required to separately identify contingency estimates distinct from other estimated cost elements. This separate identification of contingency enhances, and does not inhibit, stakeholder assessment of project risk. Concerning the issue of separate tracking of contingency estimates, please see our response provided on this subject in the subsequent section of this document.

While BFA disagrees with the use of Form 424C as a prerequisite to proper identification of unallowable costs, we do highlight that the form, which is prescribed by OMB as mandatory unless alternate forms

are approved for agency use, follows procedures consistent with NSF's interpretation with the development and expenditure of contingency estimates. First, please note that Form 424C related to budget proposals determines "TOTAL PROJECT COSTS" (Line 16) inclusive of "Contingencies" (Line 13) prior to computation of costs eligible for federal assistance, which is inconsistent with the OIG position that contingency estimates are to be excluded from direct funding by the awarding agency, and must be held separately outside of the award estimate. Further, and again consistent with NSF development of contingency estimates, we note that contingency is identified as a distinct and separate line item distinguished from other proposal cost elements, versus the OIG assertion that contingency estimates must be specifically assigned to individual cost elements of a proposal, including contingency costs that are estimated for use associated with indirect costs.

Accounting of Contingency Funds and Separate Tracking of Budgeted Versus Actual Contingency Costs

The Alert Memo asserts that NSF allows its awardees to commingle contingency costs in other categories of direct cost on their proposal cover sheets, and that awardees are not required to identify the amount of contingency costs that are estimated will be used for indirect costs. The Memo further states that without requiring this information in proposals, NSF lacks assurance that awardees will properly account for and track contingency expenditures or segregate unallowable costs in claims to the government. Finally, the Memo states that based on lack of insight into contingency estimates used to determine contingency budgets prior to funding expenditures, and the fact that contingency expenditures are not separately accounted for by recipients in their accounting systems, NSF has no insight into how contingency funds are expended in comparison to amounts originally budgeted and approved.

The OIG position on this matter conflicts with both NSF and industry standard practices for properly managing contingency estimates. Contingency estimates are developed in accordance with broadly-accepted industry and government practices to provide greater precision in budget estimates and to fully account for costs anticipated to be incurred during project execution. Application of these broadly accepted practices does not yield cost data disaggregated by cost element, (e.g., the separate identification of contingency estimates to be allocated to indirect costs), rather it results in an aggregate amount that is added to the estimate to account for cost, technical, and schedule risk. Estimates within the initially approved budget are not actual incurred costs, they are forecasts, based on best practices and information of what the parties may expect the costs to be. During construction, NSF monitors anticipated expenditures, including those requiring calls on contingency. Unique or special tracking of contingency estimates is not necessary once anticipated costs are identified and the authorization process to increase the project's baseline budget authority has been accomplished. Once budget is allocated from contingency to the project work breakdown structure via the project change control process, expenses for labor, materials, supplies, equipment, services, and other items of cost are recorded within the awardee's accounting system the same as other items estimated within the project budget. Progress is continually monitored, including allocations from contingency, via monthly Earned Value Management reports and other oversight techniques. It is also important to note that contingency is unallocated budget; it is allocated to a particular WBS category and becomes part of the budget during project execution when the project manager expects that its expenditure will be necessary to accomplish a specific work package of related WBS elements. The reverse process also occurs, where expected or realized underruns result in augmentation of the contingency budget, whose funds are not identified with any specific cost category. Once contingency in the budget estimate has

matured into an actual cost, the applicable cost principles are applied to ensure that such incurred costs to be paid by the Government are allowable. At that point however, the expense is not for a contingency reserve, which is prohibited by the cost principles; rather, it is a specific item of incurred cost. As a final note, as the OIG is aware, NSF has instituted additional controls for prior agency approval of significant contingency expenditures, as has been codified by modifications to existing cooperative agreements for major facility projects. These controls are being further strengthened through post-award monitoring of awardee incurred costs as summarized in this document.

Selection of Award Instrument

Finally, we note that the introductory paragraphs of the Alert Memorandum present context and an overarching framework to underpin its summary of audit findings, conclusions, and associated recommendations related to NSF's oversight of large facility construction awards. In short the Alert Memorandum implies that an agency's choice of funding vehicle, assistance vs. procurement, is purely discretionary; that cooperative agreements are neither subject to rigorous oversight, nor transparent as to transactions; and, by inference, that NSF has, by using such funding arrangements, introduced an unacceptable level of financial and technical risk to this portfolio of awards. A paraphrased statutory citation from the Federal Grant and Cooperative Agreement Act is used as initial support for this framework, supplemented throughout the memorandum with references to requirements that may be used with procurement instruments.

The Federal Grant and Cooperative Agreement Act prescribes use of "a procurement contract as the legal instrument reflecting a relationship between the United States Government and a State, a local government, or other recipient when—

- (1) the principal purpose of the instrument is to acquire (by purchase, lease, or barter) property or services for the direct benefit or use of the United States Government; or
- (2) the agency decides in a specific instance that the use of a procurement contract is appropriate."

The wording of the legislative cite, 31 USC 6305, that discusses the use of cooperative agreements reads,

An executive agency *shall* use a cooperative agreement as the legal instrument reflecting a relationship between the United States Government and a State, a local government, or other recipient when—

- (1) the principal purpose of the relationship is to transfer a thing of value to the State, local government, or other recipient to carry out a public purpose of support or stimulation authorized by a law of the United States instead of acquiring (by purchase, lease, or barter) property or services for the direct benefit or use of the United States Government; and

(2) substantial involvement is expected between the executive agency and the State, local government, or other recipient when carrying out the activity contemplated in the agreement.

Contemplating both the transfer of “a thing of value...to carry out a public purpose” and substantial involvement, the agency has flexibility to develop funding arrangements with degrees of rigorous oversight and review appropriate to the unique attributes of the awardee, the program, and the sponsor's needs. Consistent with the statute, NSF uses the cooperative agreement funding instrument for its large facilities construction awards. Exercising its associated sponsor prerogatives, NSF includes additional requirements in those agreements, and provides more rigorous oversight as compared to the rest of its assistance portfolio.

As previously noted, the NSF Director recently commissioned a review of the Large Facility policies and procedures that will likely result in even more rigor, applied through an enhanced risk mitigation framework. This effort is a capstone to our commitment to overall process improvement that we have made throughout our extensive interactions with the Office of the Inspector General since the issuance of the original DCAA audits.